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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,802	12/29/2000	Wolfgang Roesner	AUS920000224US1	5324

42640 7590 05/03/2005

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EXAMINER

STEVENS, THOMAS H

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,802

Applicant(s)

ROESNER ET AL.

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extension of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8-12 and 14-16 is/are pending in the application.
4a) Of the above claim(s) 3,4,7 and 13 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2,6,8-12 and 14-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16 were previously presented.
2. Claims 3,4, 7 and 13 were cancelled.
3. Claims 1,2,5,6,8,9-12,14, 15 and 16 were examined.

Section I: Response to Applicant's Arguments

Drawings

4. Applicants are thanked for addressing this issue. Objection is withdrawn.

35 USC § 102

5. Applicants are thanked for addressing this issue. Based on applicant's amendment, rejection is withdrawn; however examiner has cited new in light of the amended claims.

Section II: Final Rejection (Second Office Action)

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claim 1, 2, 6, 8, 9-12, 14, 15 and 16 rejected under 35 U.S.C. 102(e) as being anticipated by Bargh et al., (U.S. Patent 6,202,042 (2001)). Bargh et al., teaches a method and system to utilize hardware description language for providing comprehensive runtime monitoring during hardware accelerated simulation of a digital circuit design (abstract)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim 1: A computer-readable medium having stored thereon an extended event identifier data structure for use in a computer-aided design and verification system for naming simulation events tracked by instrumentation logic within a simulation model of a compiled digital circuit design that includes one or more

design entities described utilizing a hardware description language, (columns 8 and 9, lines 66-67 and 1-24) wherein said extended event identifier data structure comprises: an event name field (column 7, lines 22-25) containing data representing a simulation event; an instrumentation entity field containing data representing an instrumentation entity that generates said simulation event (the ability by design of the entity name: column 7, lines 20-30); and an instrumentation identifier field containing data specifying a hierarchical instance (column 8, lines 29-31) of said design entity (column 7, lines 20-30) in which said simulation event is generated by said instrumentation entity (column 4, lines 10-15).

Claim 2: The computer-readable medium of claim 1, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said simulation event is a count event, a fail event, or a harvest event (column 13, lines 50-61).

Claim 5: The computer-readable medium of claim 4, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said design entity field and said instrumentation entity field define unique event namespace for each instrumentation entity associated (column 14, lines 48-50) with said design entity.

Claim 6: The computer-readable medium of claim 4, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said instrumentation entity field (column 14, lines 48-50) contains the name of an embedded instrumentation entity.

Claim 8: The computer-readable medium of claim 1, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said simulation event is defined in an instrumentation entity comment, and wherein said data within said event name field includes the name given (column 7, lines 22-25) assigned to said simulation event within said instrumentation entity (column 14, lines 48-50) comment.

Claim 9: The computer-readable medium of claim 1, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said design entity name is unique (design choice) with respect to entity names of other design entities within simulation model.

Claim 10: A method for naming processing a simulation events tracked by instrumentation (column 14, lines 45-56) logic within a simulation model of a compiled digital circuit design that includes one or more design entities described utilizing a hardware description language (columns 8 and 9, lines 66-67 and 1-

24), said method comprising: within an extended event identifier data structure: associating an event name (column 7, lines 22-25), an instrumentation entity identifier (column 14, lines 48-51), a design entity identifier with simulation event, wherein said event name represents a name of said simulation event, said instrumentation entity identifier represents an instrumentation entity that generates said simulation event, said design entity identifier is a design entity name specifying a design entity, and said instantiation identifier specifies a hierarchal instance (column 8, lines 29-31) of said design entity in which said simulation event is generated by said instrumentation entity (column 4, lines 10-15); and evaluating occurrences of said simulation event with said simulation model in accordance with said extended event identifier (column 7, lines 22-25).

Claim 11: The method of claim 10, (column 14, lines 45-56; columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 14, lines 48-51; column 8, lines 29-31; column 4, lines 10-15) wherein said design entity identifier includes a design entity name, and wherein said associating step further comprises encoding said design entity name within a hardware description language (columns 8 and 9, lines 66-67 and 1-24) declaration of said simulation event.

Claim 12: The method of claim 1, (columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 8, lines 29-31; column 4, lines 10-15) wherein said design entity identifier further includes a design entity instantiation identifier,

and wherein said associating step further comprises encoding said design entity instantiation identifier (column 14, lines 48-51) within said hardware description language declaration (columns 8 and 9, lines 66-67 and 1-24) of said simulation event.

Claim 13: The method of claim 10, (column 14, lines 45-56; columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 14, lines 48-51; column 8, lines 29-31; column 4, lines 10-15) further comprising associating an event name (column 7, lines 22-25) with said simulation event.

Claim 14: The method of claim 10, (column 14, lines 45-56; columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 14, lines 48-51; column 8, lines 29-31; column 4, lines 10-15) wherein said instrumentation entity instantiated (column 8, lines 20-32 and 7, lines 22-25) within said design entity.

Claim 15: The method of claim 14, (column 14, lines 45-56; columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 14, lines 48-51; column 8, lines 29-31; column 4, lines 10-15) further comprising generating at least one instance of said design entity.

Claim 16: The method of claim 15, (column 14, lines 45-56; columns 8 and 9, lines 66-67 and 1-24; column 7, lines 22-25; column 14, lines 48-51; column 8,

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lines 29-31; column 4, lines 10-15) wherein said generating step further comprises generating an instrumentation instance (column 12, lines 31-46) data structure wherein said simulation event is declared.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

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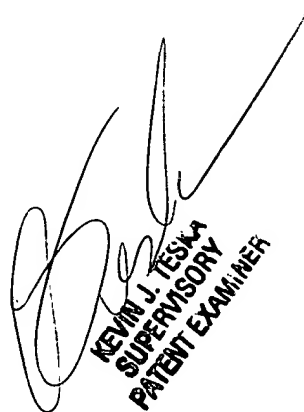
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3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (571) 272-3716. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

April 22, 2005

THS



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER